Topic 14 – Myocardial hypoxia, reperfusion, stroke – C

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0014

Implications of myocardial reperfusion on survival in women versus men with acute myocardial infarction undergoing primary coronary intervention

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Background: The in hospital mortality rate after myocardial infarction is higher among women than men. PCI is recommended treatment for ST -segment elevation myocardial infarction (STEMI) in patients of both genders. It is used in women without a clear demonstration of their efficiency in this population. It is only extrapolations of studies enrolling a large majority of males (more than 85%).It is very important to improve our therapeutic stratégies in women, to perform dedicated studies.

Aim: Of our study was to compare clinical and angiographic features in men and women and to determine wether gender influenced in – hospital prognosis of primary percutaneous coronary intervention.

Methods: We conducted a retrospective study including 282 patients admitted in the University hospital of Blida (Alegria)**.** Between April 2009 and January 2011. All these patients had an ST segment elevation myocardial infarction and underwent primary PCI within 12 hours after symptom onset.

Results: Our population counted 239men and 43women. Females were significantly older (p<0.05).They had a higher prevalence of diabetes 32.6% (P<0.05), hypertension 55.8% (P=0.01), dyslipemia16.3% (P<0.05). They were more likely to consult late (Mean time from symptom onset was 299.7±93.9min in women vs 296±97.9mn in men (p<0.001). In our study, angiographic success was achieved in 76.7% of the cases in women and in 92.1% of the cases in men (p=0.005).The in hospital mortality rate was 7% in women and 5% in men (p=NS).

Conclusion: There is no gender descrepancy in – hospital mortality in patients who undergo emergency PCI for treatment of STEMI. These data suggest that gender should not affect the decision to offer PCI but further gender specific studies are warranted.

0455

Relationship of hyperglycemia to the no-reflow phenomenon in ST-elevation myocardial infarction patients treated by primary percutaneous coronary intervention

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Background: It has been shown that elevated blood glucose levels on admission are associated with worse outcome in ST elevation myocardial infarction.

Impaired microvascular function and no-reflow phenomenon seem to be one of the underlying mechanisms of hyperglycemia deleterious effects

Aim: To establish the relationship between hyperglycemia on admission and the no-reflow phenomenon

Methods: Patients presenting with acute STEMI who underwent primary percutaneous coronary intervention (PCI) were enrolled. ST segment resolution was evaluated at 90 minutes in the worst lead. No-reflow was defined as a resolution of ST segment less than 50% in the worst lead at 90 minutes

Results: 102 consecutive patients were enrolled (87 men and 15 women) with a mean age of 56.95 ±12.89 years. The no-reflow phenomenon was observed in 28 (27.45 %) patients, their glucose level on hospital admission was significantly higher than in patients whithout no-reflow phenomenon (12.48 ± 7.48 vs. 8.55 ± 2.27 mmol/l; p = 0.01). Multivariate analysis showed that hyperglycemia defined as glycemia >11mmol/L was an independent predictor factor for no-reflow (OR = 2.18, CI = 1.42 – 3.84; p = 0.002)

Conclusion: Hyperglycemia on admission is associated with higher risk of no-reflow in STEMI patients undergoing primary PCI.

0457

Relationship between balloon release pressure and ST resolution in STEMI patients undergoing primary PCI

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Background: The optimal balloon release pressure in primary percutaneous coronary intervention is not well established and use of high pressure may jeopardize ST resolution and increase the occurrence of no reflow.

Aim: To investigate the relationship between balloon release pressure and ST resolution in STEMI patients undergoing primary PCI.

Methods: Patients undergoing primary PCI for ST elevation myocardial infarction were enrolled and assigned into two groups according to the stent implantation pressure. High pressure group with a pressure >16 atm. Standard pressure <16 atm. The balloon pressure release was left to the operators' discretion. No-reflow phenomenon was defined as Σ ST-segment resolution <70%

Results: 137 patients were enrolled with a mean age of 56.39 ± 12.8 years. The results showed that no-reflow phenomenon occurred more frequently in the high pressure group 49.32% vs 27%; p = 0.002. Furthermore, the high pressure group showed less ST resolution than the low pressure group with a mean ST-resolution 60.43 ± 25.86 vs 72.35 ± 18.13; p = 0.001

Conclusion: In primary PCI when stenting the culprit lesion, low pressure release may be better in avoiding the no reflow phenomenon

0320

Prevalence of glucose disoders in a cohort of patients hospitalized for ACS in coronary care unit, and security and efficiency of an intraveinous insulin protocol adapted on glycemic kinetic

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Background: Glycemic variabilities have a negative impact on the morbidity and mortality of acute coronary syndromes (ACS). A strict glucose monitoring is recommended on admission in Coronary Care Unit (CCU). The aims of our study were to assess the prevalence of various glucose disorders (diabete mellitus, impared fasting hyperglycemia, glucose intolerance, stress hyperglycemia) among patients hospitalized for ACS, and to assess the efficency and security of an IV insulin protocol adapted on glycemic kinetic, to decrease the risk of hypoglycemia, and for which the goal was to stabilized glycemia between 1.10 and 1,40g/l.

Population and Method: This retrospective monocenter study concerns all patients admitted for ACS (STEMI and NSTEMI) in Troyes hospital from May 2012 to May 2013. The different glycemic parameters, capillarious and veinous were collect through analysis of medical reports.

Results: 164 patients were included. The mean age was 65 ± 13 years. Among them, 97 (59%) had diabete mellitus, and 8 (5%) had an intermediate disorder. Stress hyperglycemia was observed in 10 patients (11%) free from glucose abnormalities. Among the patients without hystory of diabete mellitus and with hyperglycemia on admission, 53% were authentic diabetics. The IV insulin